IN THE CLAIMS

Please amend the claims as follows:

1. (original) Method for segmenting images into groups of segments, said segments being based on image features, with the steps of:

a) determining a group of pixels for segmenting,

b) determining for said group feature characteristics,

c) determining from neighboring groups segment templates, said segment templates describing constant or continuous features within said neighboring groups,

d) calculating for said group error values by comparing features of said group with features of said segment templates, and

e) deciding to assign said group to one of said segment templates, or to create a new segment template based on said error values.

2. (original) Method according to claim 1, with the steps of determining for said image a plurality of groups and carrying out the steps a) - e) for all groups of said image.

3. (original) Method according to claim 1, characterized in that said segment templates are determined spatially and/or temporally.

4. (original) Method according to claim 1, characterized in that scanning said groups of pixels for said segmentation is done memory matched.

5. (original) Method according to claim 1, characterized in that said decision to assign said group to one of said segment templates, or to a newly created segment template is based on threshold values.

6. (original) Method according to claim 1, characterized in that said features are based on chrominance, and/or luminance values, statistical derivatives of pixels, histograms, co-occurrence matrices and/or fractal dimensions.

7. (original) Method according to claim 1, characterized in that said segment templates comprise an average luminance and chrominance span of said pixels.

8. (original) Method according to claim 2, characterized in that said segment templates comprise at least one histogram.

9. (original) Method according to claim 3, characterized in that said segment templates comprise motion models.

10. (original) Method according to claim 1, characterized in that said segment templates comprise image position information.

11. (original) Device for calculating image segmentation according to claim 1 comprising:

- grouping means for grouping pixels of images into groups,

- extracting means for extracting feature characteristics from said groups,

- storing means for storing segment templates of neighboring groups,

- comparing means for comparing said extracted features with features of said segment templates,

- decision means for assigning said group of pixels to one of said segment templates or to create a new segment template based on error values determined between said extracted features and features of said segment templates.

12. (currently amended) Use of a method according to claim 1 ~~or a device according to claim 11~~ in image and/or video processing, medical image processing, crop analysis, video compression, motion estimation, weather analysis, fabrication monitoring, and/or intrusion detection.